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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4	Apr 09	ZDB will be removed from STN
NEWS 5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 9	Jun 03	New e-mail delivery for search results now available
NEWS 10	Jun 10	MEDLINE Reload
NEWS 11	Jun 10	PCTFULL has been reloaded
NEWS 12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS 13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS 14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS 15	Jul 30	NETFIRST to be removed from STN
NEWS 16	Aug 08	CANCERLIT reload
NEWS 17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18	Aug 08	NTIS has been reloaded and enhanced
NEWS 19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 23	Sep 03	JAPIO has been reloaded and enhanced
NEWS 24	Sep 16	Experimental properties added to the REGISTRY file
NEWS 25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28	Oct 21	EVENTLINE has been reloaded
NEWS 29	Oct 24	BEILSTEIN adds new search fields
NEWS 30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 31	Oct 25	MEDLINE SDI run of October 8, 2002

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=> s (momordica (w) charantia) or charantia
L1 1822 (MOMORDICA (W) CHARANTIA) OR CHARANTIA

=> s polypeptide (W) k
L2 38 POLYPEPTIDE (W) K

=> s l1 and l2
L3 1 L1 AND L2

=> d ab l1

L1 ANSWER 1 OF 1822 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB alpha-Glucosidase inhibitory activities were found in aqueous methanol extracts of the seeds of **Momordica charantia** and the fruit bodies of Grifola frondosa. An active principle against the enzyme prepared from rat small intestine acetone powders was isolated and characterized. The structure of the isolated compound was identified as D-(+)-trehalose by FDMS, 1H-, 13C- NMR, and (alpha)D measurements. The inhibitory activity of trehalose was compared with 1-deoxynojirimycin. Trehalose showed 45% inhibitory activity at the concentration of 2X10-3 M, but 1-deoxynojirimycin had 52% inhibitory activity at 1X10-7 M.

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2 FILES SEARCHED...
L5 13 L4 AND PY<=1999

=> d l5 au ti so py ab

L5 ANSWER 1 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU Graddis, Thomas J.; Myszka, David G.; Chaiken, Irwin M. (1)
TI Controlled formation of model homo- and heterodimer coiled coil polypeptides.
SO Biochemistry, (1993) Vol. 32, No. 47, pp. 12664-12671.
ISSN: 0006-2960.
PY 1993
AB Sequence-simplified coiled coil polypeptides were synthesized and their folding properties characterized in order to define the role of charged border residues at the coiled coil interface for the controlled formation of homodimer and heterodimer structures, Three peptides were designed to form parallel coiled coils with valine and leucine occupying the hydrophobic interface positions a and d, respectively, of the heptad repeat abcdefg. The polypeptide designated E/K42, with the heptad repeat sequence VSSLESK, contained glutamate and lysine in the interface border positions e and g, respectively, and was designed to form a coiled coil homodimer at neutral pH. Two other polypeptides, designated E/E35 and K/K35, have the heptad repeats VSSLESE and VSSLKSK, respectively. E/E35 contains only glutamic acid at both e and g positions; K/K35, only lysine. E/E35 and K/K35 were designed to form a stable coiled coil heterodimer when combined at neutral pH. All three polypeptides were prepared by solid-phase synthesis and purified by reverse-phase high-performance liquid chromatography followed by size-exclusion chromatography. E/K42 formed a stable dimeric coiled coil structure as determined by circular dichroism and size-exclusion chromatography. The alpha-helical content of E/K42 was highest at neutral pH and decreased at extremes of pH. The alpha-helical structure of E/K42 at micromolar concentrations had a T-m of 62-65 degree C and exhibited a concentration dependence of thermal denaturation consistent with dimer formation. In contrast to results with E/K42, a mixture of E/E35 and K/K35, but neither alone, forms alpha-helix at neutral pH. At micromolar concentrations the E/E35:K/K35 mixture had a T-m of 60-63 degree C and eluted as a dimer in gel filtration chromatography, suggesting that the peptides form a stable coiled coil heterodimer. Hence, for two peptides, each with a single type of charged residue at all e and g positions but oppositely charged with respect to each other, heterodimers can be stabilized and homodimers destabilized by charge attraction and repulsion, respectively. In support of this conclusion, the acidic polypeptide E/E35 forms alpha-helical structure at low pH, while the basic **polypeptide K**/K35 forms alpha-helical structure at high pH. The results argue that positions e and g of the heptad repeat of coiled coil peptides can be varied to control heterodimer and homodimer formation.

=> d l5 au ti so py ab 2-13

L5 ANSWER 2 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

09921880

AU Hrdy Vvan, Emmanuel Mertens; Van Schaftingen, Emile (1)
TI Identification, purification and separation of different isozymes of NADP-specific malic enzyme from Tritrichomonas foetus.
SO Molecular and Biochemical Parasitology, (1993) Vol. 57, No. 2, pp. 253-260.
ISSN: 0166-6851.
PY 1993
AB Tritrichomonas foetus was found to contain NADP-specific malic enzyme. The activity was present in the cytosolic fraction and was about 5-fold higher in extracts of a metronidazole-resistant strain (KV1-1MR-100) than of the parent strain (KVcl). Electrophoresis under non-denaturing conditions and activity staining indicated the existence of 3 isozymes termed I, II and III in order of increasing electrophoretic mobility. Isozymes I and II were much less active than isozyme III in the parent strain, whereas all three isozymes had comparable activities in the resistant strain. NADP-malic enzymes were purified from the cytosolic fraction of the resistant strain to apparent homogeneity and were identified by SDS-PAGE as polypeptides of 41.5 kDa (I), 40.5 kDa (III) and as a mixture of both in equal amounts (II). The molecular mass of the three holoenzymes was about 180 kDa, as determined by gel-filtration on Sephacryl S-300 HR, indicating a tetrameric structure. Isozyme III was also purified from parent strain and shown to consist of the 40.5-kDa **polypeptide**. **K**-m values for malate were 0.31, 0.65 and 1.35 mM for isozyme I, II and III, respectively. From these results we conclude that T. foetus+, which is required for the formation of ethanol by alcohol dehydrogenase, an NADP-specific enzyme in this species. This is particularly important for the resistant strain, in which ethanol is the major end-product of glucose metabolism.

L5 ANSWER 3 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU MENG B-Y; WAKASUGI T; SUGIURA M
TI TWO PROMOTERS WITHIN THE PSBK-PSBI-TRNG GENE CLUSTER IN TOBACCO CHLOROPLAST DNA.
SO CURR GENET, (1991) 20 (3), 259-264.
CODEN: CUGED5. ISSN: 0172-8083.
PY 1991
AB Transcription of the 2.6 kbp psbK-psbI-trnG cluster in tobacco chloroplasts has been studied. This cluster contains, in linear sequence, the genes encoding two low-molecular-mass **polypeptides**, **K** and I, of photosystem II (psbK and psbI, respectively), and tRNAGly (UCC) (trnG). Northern blot hybridization revealed that the largest transcript (2.6 kb) hybridizes to psbK, psbI and trnG, but not to the following trnR-UCU. Ten other transcripts randing from 0.1 to 1.3 kb were also detected. Three of these transcripts overlap the divergent transcript arising from trnS-GCU located on the opposite DNA strand. S1 mapping and primer extension experiments showed that these multiple transcripts comprise eight distinct 5' ends. By in vitro capping assays two of them were determined to be transcriptional initiation sites; one is located 153 bp upstream of psbK and the other is 6 bp upstream of trnG. The 3' ends of transcripts were determined by S1 mapping; one lies between psbI and trnG and the other is at the end of trnG. The presence of dual promoters of trnG is discussed.

L5 ANSWER 4 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU PERTUISET B; BOCCARA M; CEBRIAN J; BERTHELOT N; CHOUSTERMAN S; PUVION-DUTILLEUL F; SISMAN J; SHELDRICK P
TI PHYSICAL MAPPING AND NUCLEOTIDE SEQUENCE OF A HERPES SIMPLEX VIRUS TYPE 1 GENE REQUIRED FOR CAPSID ASSEMBLY.
SO J VIROL, (1989) 63 (5), 2169-2179.
CODEN: JOVIAM. ISSN: 0022-538X.
PY 1989

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AB In this report, we describe some phenotypic properties of a temperature-sensitive mutant of herpes simplex type 1 (HSV-1) and present data concerning the physical location and nucleotide sequence of the genomic region harboring the mutation. The effect of shifts from the permissive to the nonpermissive temperature on infectious virus production by the mutant A44ts2 indicated that the mutated function is necessary throughout, or late in, the growth cycle. At the nonpermissive temperature, no major differences were detected in viral DNA or protein synthesis with respect to the parent A44ts+. On the other hand, electron microscopy of mutant-infected cells revealed that neither viral capsids nor capsid-related structures were assembled at the nonpermissive temperature. Additional analyses employing the Hirt extraction procedure showed that A44ts2 is also unable to mature replicated viral DNA into unit-length molecules under nonpermissive conditions. The results of marker rescue experiments with intact A44ts2 DNA and cloned restriction fragments of A44ts+ placed the lesion in the coordinate interval 0.553 to 0.565 (1,837 base pairs in region UL) of the HSV-1 physical map. No function has previously been assigned to this region, although it is known to be transcribed into two 5' coterminal mRNAs which code in vitro for a 54,000-molecular-weight **polypeptide** (**K**. P. Anderson, R. J. Frink, G. B. Devi, B. H. Gaylord, R. H. Costa, and E. K. Wagner, J. Virol. 37: 1011-1027, 1981). We sequenced the interval 0.551 to 0.565 and found an open reading frame (ORF) for a 50,175-molecular-weight polypeptide. The predicted product of this ORF exhibits strong homology with the product of varicella-zoster virus ORF20 and lower, but significant, homology with the product of Epstein-Barr virus BORF1. For the three viruses, the corresponding ORFs lie just upstream of the gene coding for the large subunit of viral ribonucleotide reductase. The ORF described here corresponds to the ORF designated UL38 in the recently published nucleotide sequence of the HSV-1 UL region (D. J. McGeoch, M. A. Dalrymple, A. J. Davison, A. Dolan, M. C. Frame, D. McNab, L. J. Perry, J. E. Scott, and P. Taylor, J. Gen. Virol. 69: 1531-1574, 1988).

L5 ANSWER 5 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU NEEB M; KUNZ U; KOEPSELL H
TI IDENTIFICATION OF D GLUCOSE-BINDING POLYPEPTIDES WHICH ARE COMPONENTS OF THE RENAL SODIUM-D-GLUCOSE COTRANSPORTER.
SO J BIOL CHEM, (1987) 262 (22), 10718-10727.
CODEN: JBCHA3. ISSN: 0021-9258.
PY 1987
AB D-Glucose-binding polypeptides in the Na+-D-glucose cotransporter from pig renal cortex were identified by affinity labeling with two D-glucose analogs, 10-N-(N-[4-azido-2-nitrophenyl]-.beta.-alanyl)amino-1-decyl-.beta.-D-glucopyranoside (NapADG) and 10-N-(bromoacetyl)amino-1-decyl-.beta.-D-glucopyranoside (BADG). During short-term incubation in the dark, NapADG and BADG are reversible inhibitors of Na+ gradient-dependent D-glucose uptake and Na+-dependent phlorizin binding with Ki values of about 40 and 400 .mu.M, respetively. Irreversible inhibition of Na+-dependent phlorizin binding, which was prevented by D-glucose or phlorizin, was measured after 1-h incubation with BADG. Both NapADG and BADG selectively labeled polypeptides with apparent molecular weights of 82,000, 75,000, 64,000, and 47,000. Since labeling of the Mr 82,000 and 75,000 polypeptides by both analogs was partially dependent on the presence of Na+ and was partially protected by D-glucose or phlorizin but not by L-glucose or D-mannose, these polypeptides are thought to be components of the renal Na+-D-glucose cotransporter which contain D-glucose-binding sites. For the Mr 64,000 and 47,000 polypeptides, Na+ dependence and D-glucose protection were not constantly observed. However, also, these polypeptides are thought to be components or proteolytic splitting products of the Na+-D-glucose cotransporter since we observed that three monoclonal antibodies showed cross-reaction with the

BADG-labeled Mr 82,000, 64,000, and 47,000 **polypeptides** (**K**. Korn, A. Raszeja-Specht, S. Bernotat-Danielowski, and H. Koepsell, manuscript in preparation). When the BADG-labeled Mr 82,000 and 75,000 polypeptides were analyzed after two-dimensional separation by isoelectric focusing and sodium dodecyl sulfate-polyacrylamide gel electrophoresis, three labeled, D-glucose-protectable polypeptides with the respective molecular weights and isoelectric points of 82,000 and 5.6, 75,000 and 5.4, and 75,000 and 6.9 were distinguished. The data indicate that renal brush-border membranes contain several polypeptides which are components of the Na+-D-glucose cotransporter and contain D-glucose-binding sites.

L5 ANSWER 6 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU BANUETT F; HERSKOWITZ I
TI IDENTIFICATION OF POLYPEPTIDES ENCODED BY AN ESCHERICHIA-COLI LOCUS HFL-A THAT GOVERNS THE LYSIS-LYSOGENY DECISION OF BACTERIOPHAGE LAMBDA.
SO J BACTERIOL, (1987) 169 (9), 4076-4085.
CODEN: JOBAAY. ISSN: 0021-9193.
PY 1987
AB We report the cloning of the Escherichia coli hflA locus, which governs stability of phage .lambda. cII protein and which has been proposed to encode or regulate a cII-specific protease. The hflA locus was cloned on an 18-kilobase DNA fragment by selecting for plasmids that carry the neighboring purA gene. The boundaries of hflA were delimited by analysis of deletions and insertions constructed in vitro and by use of transposon Tn1000. Maxicell analysis of proteins encoded by the hflA-containing fragment shows that hflA consists of at least two nonoverlapping genes, hflC and hflK, encoding polypeptides of 37,000 (C) and 46,000 (K) daltons. We observe that insertions into one gene eliminate the corresponding polypeptide and greatly reduce synthesis of the other. We suggest that these two **polypeptide** (**K** and C) interact to form a multimeric complex and that free subunits are unstable. We have constructed two types of fusions between hflA and lacZ. One is an hflC-lacZ protein fusion constructed in vitro; the other is an hfl-lacZ operon fusion in which a Mu dX(Apr lac) has inserted into the hflK gene. We have used the operon fusion to infer the direction of transcription of the hflK gene-toward hflC and in the same direction as hflC. Last, we describe evidence that hflA contains an additional gene, hflX, encoding a 50,000-dalton polypeptide.

L5 ANSWER 7 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU ADLER K
TI SEQUENTIAL SYNTHESIS OF MEMBRANE POLY PEPTIDES IN CHLOROPLAST THYLAKOIDS OF SYNCHRONIZED CHLORELLA-PYRENOIDOSA CELLS.
SO PLANT SCI LETT, (1976) 6 (4), 261-266.
CODEN: PTSLAF. ISSN: 0304-4211.
PY 1976
AB Synchronized C. pyrenoidosa cells (strain 211-8b) were incubated for 15 min with [3H]leucine at different times after the start of the light period. Chloroplast membranes were isolated and the polypeptides of the thylakoid membranes separated by polyacrylamide gel electrophoresis. The distribution of the radioactive label incorporated in polypeptides at different times indicates a sequential synthesis of protein-chlorophyll complexes (CPC) of the chloroplast membrane proteins. Synthesis of CPC of photochemical systems I and II is promoted by light, whereas the synthesis of the **polypeptide** "**K**" decreases with the beginning of the light period. For different polypeptides during the differentiation process there appears to be an independent variation in the rates of synthesis or in the incorporation into the membrane.

L5 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2002 ACS

09921880

AU Murata, Norio; Miyao, Mitsue; Hayashida, Nobuaki; Hidaka, Tadashi; Sugiura, Masahiro
TI Identification of a new gene in the chloroplast genome encoding a low-molecular-mass polypeptide of photosystem II complex
SO FEBS Letters (**1988**), 235(1-2), 283-8
CODEN: FEBLAL; ISSN: 0014-5793
PY **1988**
AB Low-mol.-mass polypeptides in spinach photosystem II membranes were sepd. by SDS-polyacrylamide gel electrophoresis. The partial amino acid sequence of 1 of the polypeptides was detd. Comparison of this sequence with the entire nucleotide sequence of the tobacco chloroplast genome revealed that this polypeptide is encoded in the chloroplast genome. The gene for the polypeptide, designated as psbK, is located between the genes for tRNASer and tRNAGln in the large single-copy region and oriented in the direction opposite to the tRNA genes. The amino acid sequence deduced from the gene indicates that the translation product consists of 98 amino acid residues and its 62nd residue corresponds to the amino-terminus of the mature polypeptide. The putative polypeptide consists of 37 amino acid residues with a mol. mass of 4285 daltons and has a single membrane-spanning segment. Northern blot hybridization anal. revealed that psbK was transcribed in the chloroplast.

L5 ANSWER 9 OF 13 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AU Roobol A.; Sahyoun Z.P.; Carden M.J.
TI Selected subunits of the cytosolic chaperonin associate with microtubules assembled in vitro.
SO Journal of Biological Chemistry, (22 Jan 1999) 274/4 (2408-2415).
Refs: 54
ISSN: 0021-9258 CODEN: JBCHA3
PY **1999**
AB The molecular chaperone activities of the only known chaperonin in the eukaryotic cytosol (cytosolic chaperonin containing T-complex polypeptide 1 (CCT)) appear to be relatively specialized; the main folding substrates in vivo and in vitro are identified as tubulins and actins. CCT is unique among chaperonins in the complexity of its hetero-oligomeric structure, containing eight different, although related, gene products. In addition to their known ability to bind to and promote correct folding of newly synthesized and denatured tubulins, we show here that CCT subunits .alpha., .gamma., .zeta., and .theta. also associated with in vitro assembled microtubules, i.e. behaved as microtubule- associated proteins. This nucleotide-dependent association between microtubules and CCT **polypeptides** (**K**(d) .apprx. 0.1 .mu.M CCT subunit) did not appear to involve whole oligomeric chaperonin particles, but rather free CCT subunits. Removal of the tubulin COOH termini by subtilisin digestion caused all eight CCT subunits to associate with the microtubule polymer, thus highlighting the non-chaperonin nature of the selective CCT subunit association with normal microtubules.

L5 ANSWER 10 OF 13 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AU Predki P.F.; Sarkar B.
TI Effect of replacement of 'zinc finger' zinc on estrogen receptor DNA interactions.
SO Journal of Biological Chemistry, (1992) 267/9 (5842-5846).
ISSN: 0021-9258 CODEN: JBCHA3
PY **1992**
AB Exposure of bovine estrogen receptor to the metal chelators EDTA and 1,10-phenanthroline results in a loss of nonspecific DNA binding, presumably because of the removal of 'zinc finger' zinc. Nonspecific DNA binding, as measured by a DNA-cellulose binding assay, can be restored by dialysis of the aporeceptor against buffer containing zinc, cadmium, and cobalt but not with buffer containing copper or nickel. More detailed studies were

carried out using a bacterially expressed polypeptide encompassing the DNA binding domain of the human estrogen receptor. Apopolypeptide fails to bind DNA specifically, as measured by mobility shift assay using a consensus estrogen response element hexamer containing oligonucleotide, but DNA binding was restored by dialysis of the apopolypeptide against buffer containing zinc, cadmium, and cobalt but not with buffer containing copper or nickel. Dissociation constants of zinc- and cadmium-reconstituted polypeptide for the estrogen response element hexamer (66 and 48 nM, respectively) are virtually indistinguishable from native **polypeptide** (**K**(d) = 48 nM) whereas cobalt- reconstituted polypeptide has a lower affinity (K(d) = 720 nM). However, native, zinc-, cadmium-, and cobalt-reconstituted polypeptides gave identical results in a methylation interference assay. Competition experiments with zinc and copper or nickel suggest that copper and nickel are able to bind to zinc finger residues but do so nonproductively. The relative affinities copper > cadmium > zinc > cobalt > nickel for the polypeptide were determined by a zinc blot competition assay. The ability of cadmium and cobalt to substitute for zinc in the zinc fingers demonstrates a structural 'flexibility' in the DNA binding domain as each of these metals has slightly different ionic radii. On the other hand, subtle differences in DNA binding affinity and/or specificity could exist, which may not be detectable here. Also, the ability of metals to substitute for zinc in the DNA binding domain suggests that metal substitution in these zinc fingers in vivo may be of relevance to the toxicity and/or carcinogenicity of some of these metals.

L5 ANSWER 11 OF 13 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AU Barnes K.; Bourne A.; Cook P.A.; Turner A.J.; Kenny A.J.
TI Membrane peptidases in the peripheral nervous system of the pig: Their localization by immunohistochemistry at light and electron microscopic levels.
SO Neuroscience, (1991) 44/1 (245-261).
ISSN: 0306-4522 CODEN: NRSCDN
PY **1991**
AB The presence and cellular localization of five membrane peptidases has been investigated in peripheral nerves, including those of the autonomic nervous system, in the pig. Endopeptidase-24.11 ('enkephalinase') peptidyl dipeptidase A, aminopeptidase N, aminopeptidase W and dipeptidyl peptidase IV were studied by both enzymic assays of membranes prepared from samples of nerve and by immunoperoxidase histochemistry at light and in two cases, endopeptidase-24.11 and aminopeptidase W, at electron microscopic levels. All five peptidases could be quantified by enzymic assay, though the activities were about 1% of those in renal microvilli and less than those of choroid plexus membranes. Endopeptidase-24.11 was associated with Schwann cell membranes in all types of nerve examined, including major nerves containing predominantly myelinated fibres as well as autonomic nerves, such as the vagus and splenic nerves and the sympathetic chain, staining being observed in membranes associated with myelinated and unmyelinated fibres. The Schwann cell location of endopeptidase-24.11 was confirmed by correlation with immunostaining for glial fibrillary acidic protein and by electron microscopy. This peptidase is known to have a wide repertoire of susceptible substrates among neuropeptides which was here shown to include vasoactive intestinal **polypeptide** (**K** (m) 268 .mu.M, k(cat) 568 min-1), one of a number of neuropeptides present in peripheral nerve fibers. Three of the peptidases, peptidyl dipeptidase A, aminopeptidase N and dipeptidyl peptidase IV, were associated with microvessels of peripheral nerves. Aminopeptidase N was also observed in connective tissue elements, including the perineurium. Aminopeptidase W was unique among the five peptidases in having a neuronal localization. This was observed in unmyelinated and myelinated nerves and was supported by comparison with the pattern of staining observed for neurofilament

protein and by electron microscopic immunoperoxidase staining. This observation was unexpected since aminopeptidase W has not been detected as a neuronal marker in the brain. Some possible roles for the membrane peptidases in peripheral nerves are discussed.

L5 ANSWER 12 OF 13 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AU Hall S.W.; Kuhn H.
TI Purification and properties of guanylate kinase from bovine retinas and rod outer segments.
SO European Journal of Biochemistry, (1986) 161/3 (551-556).
CODEN: EJBCAI
PY **1986**
AB The presence of three soluble nucleotide phosphotransferases in bovine rod outer segments was demonstrated: guanylate kinase (EC 2.7.4.8), nucleoside-diphosphate kinase (EC 2.7.4.6) and adenylate kinase (EC 2.7.4.3). The enzyme guanylate kinase, which catalyzes the reaction GMP + ATP .dblarw. GDP + ADP, was purified to homogeneity from isolated bovine rod outer segments as well as from bovine retinas. The enzyme preparations obtained from both sources are identical in their chromatographic properties, molecular mass (20-23 kDa for both native enzyme and dodecylsulfate-denatured **polypeptide**), **K**(m) values (13 .mu.M for GMP and 430 .mu.M for ATP), specific activities, and nucleotide specificities. The enzyme's turnover number was estimated to be 130 s-1. The minimum amount of enzyme found in rod outer segments is about 1 copy per 800 rhodopsin molecules. The role of the enzyme in the cyclic GMP cycle in rod outer segments is discussed.

L5 ANSWER 13 OF 13 SCISEARCH COPYRIGHT 2002 ISI (R)
AU GORZIGLIA M; LARREA C; LIPRANDI F; ESPARZA J (Reprint)
TI BIOCHEMICAL-EVIDENCE FOR THE OLIGOMERIC (POSSIBLY TRIMERIC) STRUCTURE OF THE MAJOR INNER CAPSID **POLYPEPTIDE** (**K**-45) OF ROTAVIRUSES
SO JOURNAL OF GENERAL VIROLOGY, (**1985**) Vol. 66, No. SEP, pp. 1889-1900.
PY 1985

=>
=> s psbK
L6 171 PSBK

=> d hist

(FILE 'HOME' ENTERED AT 17:32:07 ON 14 NOV 2002)

FILE 'BIOSIS, MEDLINE, CAPLUS, EMBASE, SCISEARCH' ENTERED AT 17:32:32 ON 14 NOV 2002
L1 1822 S (MOMORDICA (W) CHARANTIA) OR CHARANTIA
L2 38 S POLYPEPTIDE (W) K
L3 1 S L1 AND L2
L4 17 DUP REM L2 (21 DUPLICATES REMOVED)
L5 13 S L4 AND PY<=1999
L6 171 S PSBK

=> s l6 and l1
L7 0 L6 AND L1

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NEWS 5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 9	Jun 03	New e-mail delivery for search results now available
NEWS 10	Jun 10	MEDLINE Reload
NEWS 11	Jun 10	PCTFULL has been reloaded
NEWS 12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS 13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS 14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS 15	Jul 30	NETFIRST to be removed from STN
NEWS 16	Aug 08	CANCERLIT reload
NEWS 17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18	Aug 08	NTIS has been reloaded and enhanced
NEWS 19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 23	Sep 03	JAPIO has been reloaded and enhanced
NEWS 24	Sep 16	Experimental properties added to the REGISTRY file
NEWS 25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28	Oct 21	EVENTLINE has been reloaded
NEWS 29	Oct 24	BEILSTEIN adds new search fields
NEWS 30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 31	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS 32	Nov 18	DKILIT has been renamed APOLLIT

NEWS EXPRESS	October 14 CURRENT WINDOWS VERSION IS V6.01, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 18:33:15 ON 20 NOV 2002

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 18:33:40 ON 20 NOV 2002
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 NOV 2002 HIGHEST RN 473968-20-6
DICTIONARY FILE UPDATES: 19 NOV 2002 HIGHEST RN 473968-20-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s sql=18
L1 71236 SQL=18

=> FIL BIOSIS MEDLINE CAPLUS EMBASE SCISEARCH

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	11.60	11.81

FILE 'BIOSIS' ENTERED AT 18:45:32 ON 20 NOV 2002
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FILE 'MEDLINE' ENTERED AT 18:45:32 ON 20 NOV 2002

FILE 'CAPLUS' ENTERED AT 18:45:32 ON 20 NOV 2002
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FILE 'EMBASE' ENTERED AT 18:45:32 ON 20 NOV 2002
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FILE 'SCISEARCH' ENTERED AT 18:45:32 ON 20 NOV 2002
COPYRIGHT (C) 2002 Institute for Scientific Information (ISI) (R)

09921880

```
=> s (momordica (w) charantia)
L2        1768 (MOMORDICA (W) CHARANTIA)

=> s (charantia)
L3        1824 (CHARANTIA)

=> s l2 and l3
L4        1768 L2 AND L3

=> s l2 or l3
L5        1824 L2 OR L3

=> dup rem
ENTER L# LIST OR (END):l5
PROCESSING IS APPROXIMATELY  81% COMPLETE FOR L5
PROCESSING COMPLETED FOR L5
L6         1040 DUP REM L5 (784 DUPLICATES REMOVED)

=> s l1 and l6
TOO MANY TERMS FOR FILE CROSSOVER IN L1
There are limits on the size of an answer set being crossed over from
one file to another.  Enter HELP CROSSOVER at an arrow prompt (=>)
for specific information.

=> help crossover
GENERAL HELP FOR 'CROSSOVER' IS NOT AVAILABLE
 BIOSIS
 MEDLINE
 CAPLUS
 EMBASE
 SCISEARCH
ENTER A FILE NAME OR (END):medline

 The term 'file crossover' refers to the use of an answer set created
 by a search in one file as a search term or profile in another file.

 If you want to search the same query, use the L-number of an answer
 set created in another file as a search profile in this file.  The
 query used to create the answer set is searched.

 Example:
         (In any other STN File)

           => S VITAMIN AND HEALTH?
           L1        5676 VITAMIN AND HEALTH?

         (In the MEDLINE File)

           => S L1
           L2        6533 VITAMIN AND HEALTH?

 You may also crossover and search a set of terms extracted from an
 answer set.  For more information on crossover of extracted terms,
 enter HELP TRANSFER at an arrow prompt (=>).

 Example:
        (In any other STN file):

            => S PARANEOPLASTIC SYNDROME AND PY>=1997
                       39 PARANEOPLASTIC
```

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```
                18047 SYNDROME
                    4 PARANEOPLASTIC SYNDROME
                        (PARANEOPLASTIC(W)SYNDROME)
               242946 PY>=1997
L1                  2 PARANEOPLASTIC SYNDROME AND PY>=1997

(In the MEDLINE File):

=> TRANSFER
ENTER L# (L1) OR ?:.
ENTER ANSWER NUMBERS, RANGES (1-), OR ?:.
ENTER DISPLAY FIELDS (TI) OR ?:AU

L2          TRANSFER L1 1- AU :      11 TERMS
L3        1391 L2

=> D HIT
L3   ANSWER 1 OF 1391     MEDLINE
AU   Ustun C; Beksac M; Dalva K; Koc H;
     Konuk N; Ilhan O; Ozcan M; Topcuoglu P;
     Sertkaya D; Hayran M
```

You may use the CAS Registry Numbers that are answers from a search in the REGISTRY File as a search term or profile in the MEDLINE File, without looking at all the answers or entering the CAS Registry Numbers individually. To do this, enter the L-number of the REGISTRY answer set in a SEARCH command in MEDLINE. You may use this L-number in any search where you might use a Registry Number, i.e., combined with other terms using the logical operators or the (L) include all deleted (DR), replacing (RR), preferred (PR) and alternate (AR) numbers.

Example:

```
(In the REGISTRY File)

=> S 7235-40-7/RN
L1            1 7235-40-7/RN

(In the MEDLINE File)

=> S L1
L2         3104 L1
```

There is a limit of 10,000 REGISTRY File answers for a single crossover to the MEDLINE File.

```
=> index allbib
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 9.27      21.08

INDEX '1MOBILITY, 2MOBILITY, ADISALERTS, AEROSPACE, AGRICOLA, ALUMINIUM,
      ANABSTR, APOLLIT, AQUASCI, AQUIRE, BABS, BIBLIODATA, BIOBUSINESS,
      BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, BLLDB, CABA,
      CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEABA-VTB, ...'
ENTERED AT 18:48:43 ON 20 NOV 2002

134 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
```

09921880

search error messages that display as 0* with SET DETAIL OFF.

```
=> s (charantia)
          7   FILE ADISALERTS
        218   FILE AGRICOLA
          5   FILE ANABSTR
         29   FILE BABS
          3   FILE BIBLIODATA
         40   FILE BIOBUSINESS
        592   FILE BIOSIS
         28   FILE BIOTECHABS
         28   FILE BIOTECHDS
         65   FILE BIOTECHNO
        802   FILE CABA
         55   FILE CANCERLIT
         16   FILE CAOLD
        471   FILE CAPLUS
          1   FILE CBNB
          5   FILE CEABA-VTB
          1   FILE CEN
  31 FILES SEARCHED...
          2   FILE CIN
          1   FILE COMPENDEX
         11   FILE CONFSCI
          3   FILE CORROSION
         11   FILE CROPB
         29   FILE CROPU
         24   FILE DDFB
         70   FILE DDFU
         38   FILE DGENE
         10   FILE DPCI
         24   FILE DRUGB
          1   FILE DRUGNL
         74   FILE DRUGU
          1   FILE EMBAL
        219   FILE EMBASE
          3   FILE ENCOMPLIT
          3   FILE ENCOMPLIT2
          8   FILE ENERGY
          1   FILE ENTEC
        103   FILE ESBIOBASE
         41   FILE EUROPATFULL
         20   FILE FROSTI
         64   FILE FSTA
         15   FILE GENBANK
          1   FILE GEOREF
          1   FILE HEALSAFE
         20   FILE IFIPAT
          5   FILE INIS
         19   FILE INPADOC
  75 FILES SEARCHED...
         35   FILE IPA
         26   FILE JAPIO
         57   FILE JICST-EPLUS
         88   FILE LIFESCI
        212   FILE MEDLINE
          3   FILE METADEX
        349   FILE NAPRALERT
         12   FILE NLDB
          1   FILE NTIS
        177   FILE PASCAL
```

```
          4   FILE PATDPA
          1   FILE PATOSDE
          5   FILE PATOSEP
          7   FILE PATOSWO
        338   FILE PCTFULL
          2   FILE PHIN
          1   FILE PIRA
          2   FILE POLLUAB
         16   FILE PROMT
        330   FILE SCISEARCH
          2   FILE SIGLE
 114 FILES SEARCHED...
          3   FILE TIBKAT
        210   FILE TOXCENTER
          1   FILE ULIDAT
        241   FILE USPATFULL
          2   FILE USPAT2
          1   FILE VETB
          4   FILE VETU
         41   FILE WPIDS
         41   FILE WPINDEX
          4   FILE WSCA

  77 FILES HAVE ONE OR MORE ANSWERS,  134 FILES SEARCHED IN STNINDEX

L7   QUE (CHARANTIA)

=> file pctfull
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       1.59      22.67

FILE 'PCTFULL' ENTERED AT 18:50:35 ON 20 NOV 2002
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FILE LAST UPDATED:         15 NOV 2002      <20021115/UP>
MOST RECENT UPDATE WEEK:       200245        <200245/EW>
FILE COVERS JULY 1993 TO DATE

>>> The backfile is loaded permanently with about
    12,000 documents per day. <<<


>>> PCTFULL is reloaded. See HELP RLOAD for details <<<

>>> Text fields for PCTFULL have been created by OCR
(Optical Character Recognition) software. Therefore,
characters may be misinterpreted, or portions of the text
may be incomplete. A small percentage of records are
absent because they failed to scan. Use the FREE
display format to determine the availability of full-text
fields and the number of claims (CLMN) and description
paragraphs (DETN). <<<

=> s l1
'18' NOT A VALID FIELD CODE
L8           0 SQL=18

=> file agricola
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
```

09921880

FULL ESTIMATED COST 0.55 23.22

FILE 'AGRICOLA' ENTERED AT 18:51:08 ON 20 NOV 2002

FILE COVERS 1970 TO 9 Nov 2002 (20021109/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l1
TOO MANY TERMS FOR FILE CROSSOVER IN L1
There are limits on the size of an answer set being crossed over from
one file to another. Enter HELP CROSSOVER at an arrow prompt (=>)
for specific information.

=> FIL MEDLINE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.28	23.50

FILE 'MEDLINE' ENTERED AT 18:51:25 ON 20 NOV 2002

FILE LAST UPDATED: 20 NOV 2002 (20021120/UP). FILE COVERS 1958 TO DATE.

On June 9, 2002, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2002 vocabulary. Enter HELP THESAURUS for details.

If you received SDI results from MEDLINE on October 8, 2002, these may
have included old POPLINE data and in some cases duplicate abstracts.
For further information on this situation, please visit NLM at:
http://www.nlm.nih.gov/pubs/techbull/so02/so02_popline.html

To correct this problem, CAS will remove the POPLINE records from the
MEDLINE file and process the SDI run dated October 8, 2002 again.

Customers who received SDI results via email or hard copy prints on
October 8, 2002 will not be charged for this SDI run. If you received
your update online and displayed answers, you may request a credit by
contacting the CAS Help Desk at 1-800-848-6533 in North America or
614-447-3698 worldwide, or via email to help@cas.org

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l1
TOO MANY TERMS FOR FILE CROSSOVER IN L1
There are limits on the size of an answer set being crossed over from
one file to another. Enter HELP CROSSOVER at an arrow prompt (=>)
for specific information.

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION

09921880

FULL ESTIMATED COST 0.38 23.88

FILE 'REGISTRY' ENTERED AT 18:52:15 ON 20 NOV 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 19 NOV 2002 HIGHEST RN 473968-20-6
DICTIONARY FILE UPDATES: 19 NOV 2002 HIGHEST RN 473968-20-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

```
=> s l1 and [-k]/sqsp
         11434 [-K]/SQSP
L9       11434 L1 AND [-K]/SQSP

=> s l1
L10      71236 SQL=18

=> s .[-lys]/sqsp and sql=18
         11433 .[-LYS]/SQSP
         71236 SQL=18
L11      11433 .[-LYS]/SQSP AND SQL=18

=> d l11 1 kwic

L11  ANSWER 1 OF 11433  REGISTRY  COPYRIGHT 2002 ACS
FS   PROTEIN SEQUENCE; STEREOSEARCH
SQL  18

SEQ      1 GGGKLSDLKL KLPELKAY
           ==== ===== =======
HITS AT:   1-4, 6-17


=> s .[-k]./sqsp and sql=18
         11434 .[-K]./SQSP
         71236 SQL=18
L12      11434 .[-K]./SQSP AND SQL=18

=> s [-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K]/sqsp
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

=> s [-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K]/sqsp
COMMAND INTERRUPTED
```

09921880

If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

```
=> s l1 and .................[-K]/sqsp
          10274 .................[-K]/SQSP
L13       10274 L1 AND .................[-K]/SQSP

=> s l1 and ................[-K]./sqsp
          10230 ................[-K]./SQSP
L14       10230 L1 AND ................[-K]./SQSP

=> s l1 and ...............[-K]../sqsp
           9948 ...............[-K]../SQSP
L15        9948 L1 AND ...............[-K]../SQSP

=> s ..............[-K].../sqsp
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

=> s l1 and ..............[-K].../sqsp
          10282 ..............[-K].../SQSP
L16       10282 L1 AND ..............[-K].../SQSP

=> s l1 and .............[-K]..../sqsp
          10525 .............[-K]..../SQSP
L17       10525 L1 AND .............[-K]..../SQSP

=> s l1 and ............[-K]...../sqsp
          10451 ............[-K]...../SQSP
L18       10451 L1 AND ............[-K]...../SQSP

=> s l1 and ...........[-K]....../sqsp
          10358 ...........[-K]....../SQSP
L19       10358 L1 AND ...........[-K]....../SQSP

=> s l1 and ............[-K]...../sqsp
          10451 ............[-K]...../SQSP
L20       10451 L1 AND ............[-K]...../SQSP

=> s l1 and ..........[-K]......./sqsp
          10462 ..........[-K]......./SQSP
L21       10462 L1 AND ..........[-K]......./SQSP

=> s l1 and .........[-K]......../sqsp
          10394 .........[-K]......../SQSP
L22       10394 L1 AND .........[-K]......../SQSP

=> s l1 and ........[-K]........./sqsp
          10230 ........[-K]........./SQSP
L23       10230 L1 AND ........[-K]........./SQSP

=> s l1 and .......[-K].........../sqsp
          10549 .......[-K].........../SQSP
L24       10549 L1 AND .......[-K].........../SQSP

=> s l1 and ......[-K]........../sqsp
          10562 ......[-K]........../SQSP
L25       10562 L1 AND ......[-K]........../SQSP
```

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```
=> s l1 and .....[-K]...../sqsp
          10380 .....[-K]...../SQSP
L26       10380 L1 AND .....[-K]...../SQSP

=> s l1 and ....[-K]...../sqsp
          10241 ....[-K]...../SQSP
L27       10241 L1 AND ....[-K]...../SQSP

=> s l1 and ...[-K]...../sqsp
          10298 ...[-K]...../SQSP
L28       10298 L1 AND ...[-K]...../SQSP

=> s l1 and ..[-K]...../sqsp
          10630 ..[-K]...../SQSP
L29       10630 L1 AND ..[-K]...../SQSP

=> s l1 and .[-K]...../sqsp
          10403 .[-K]...../SQSP
L30       10403 L1 AND .[-K]...../SQSP

=> s l1 and [-K]...../sqsp
          10371 [-K]...../SQSP
L31       10371 L1 AND [-K]...../SQSP

=> d hist

     (FILE 'HOME' ENTERED AT 18:33:15 ON 20 NOV 2002)

     FILE 'REGISTRY' ENTERED AT 18:33:40 ON 20 NOV 2002
L1         71236 S SQL=18

     FILE 'BIOSIS, MEDLINE, CAPLUS, EMBASE, SCISEARCH' ENTERED AT 18:45:32 ON
     20 NOV 2002
L2          1768 S (MOMORDICA (W) CHARANTIA)
L3          1824 S (CHARANTIA)
L4          1768 S L2 AND L3
L5          1824 S L2 OR L3
L6          1040 DUP REM L5 (784 DUPLICATES REMOVED)

     INDEX '1MOBILITY, 2MOBILITY, ADISALERTS, AEROSPACE, AGRICOLA, ALUMINIUM,
     ANABSTR, APOLLIT, AQUASCI, AQUIRE, BABS, BIBLIODATA, BIOBUSINESS,
     BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, BLLDB, CABA,
     CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEABA-VTB, ..' ENTERED AT
     18:48:43 ON 20 NOV 2002
               SEA (CHARANTIA)
               ---------
                 7   FILE ADISALERTS
               218   FILE AGRICOLA
                 5   FILE ANABSTR
                29   FILE BABS
                 3   FILE BIBLIODATA
                40   FILE BIOBUSINESS
               592   FILE BIOSIS
                28   FILE BIOTECHABS
                28   FILE BIOTECHDS
                65   FILE BIOTECHNO
               802   FILE CABA
                55   FILE CANCERLIT
                16   FILE CAOLD
               471   FILE CAPLUS
```

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```
  1   FILE CBNB
  5   FILE CEABA-VTB
  1   FILE CEN
  2   FILE CIN
  1   FILE COMPENDEX
 11   FILE CONFSCI
  3   FILE CORROSION
 11   FILE CROPB
 29   FILE CROPU
 24   FILE DDFB
 70   FILE DDFU
 38   FILE DGENE
 10   FILE DPCI
 24   FILE DRUGB
  1   FILE DRUGNL
 74   FILE DRUGU
  1   FILE EMBAL
219   FILE EMBASE
  3   FILE ENCOMPLIT
  3   FILE ENCOMPLIT2
  8   FILE ENERGY
  1   FILE ENTEC
103   FILE ESBIOBASE
 41   FILE EUROPATFULL
 20   FILE FROSTI
 64   FILE FSTA
 15   FILE GENBANK
  1   FILE GEOREF
  1   FILE HEALSAFE
 20   FILE IFIPAT
  5   FILE INIS
 19   FILE INPADOC
 35   FILE IPA
 26   FILE JAPIO
 57   FILE JICST-EPLUS
 88   FILE LIFESCI
212   FILE MEDLINE
  3   FILE METADEX
349   FILE NAPRALERT
 12   FILE NLDB
  1   FILE NTIS
177   FILE PASCAL
  4   FILE PATDPA
  1   FILE PATOSDE
  5   FILE PATOSEP
  7   FILE PATOSWO
338   FILE PCTFULL
  2   FILE PHIN
  1   FILE PIRA
  2   FILE POLLUAB
 16   FILE PROMT
330   FILE SCISEARCH
  2   FILE SIGLE
  3   FILE TIBKAT
210   FILE TOXCENTER
  1   FILE ULIDAT
241   FILE USPATFULL
  2   FILE USPAT2
  1   FILE VETB
  4   FILE VETU
 41   FILE WPIDS
```

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```
              41   FILE WPINDEX
               4   FILE WSCA
L7             QUE (CHARANTIA)
               ---------

     FILE 'PCTFULL' ENTERED AT 18:50:35 ON 20 NOV 2002
L8           0 S L1

     FILE 'AGRICOLA' ENTERED AT 18:51:08 ON 20 NOV 2002

     FILE 'MEDLINE' ENTERED AT 18:51:25 ON 20 NOV 2002

     FILE 'REGISTRY' ENTERED AT 18:52:15 ON 20 NOV 2002
L9        11434 S L1 AND [-K]/SQSP
L10       71236 S L1
L11       11433 S .[-LYS]/SQSP AND SQL=18
L12       11434 S .[-K]./SQSP AND SQL=18
L13       10274 S L1 AND .................[-K]/SQSP
L14       10230 S L1 AND ................[-K]./SQSP
L15        9948 S L1 AND ...............[-K]../SQSP
L16       10282 S L1 AND ..............[-K].../SQSP
L17       10525 S L1 AND .............[-K]..../SQSP
L18       10451 S L1 AND ............[-K]...../SQSP
L19       10358 S L1 AND ...........[-K]....../SQSP
L20       10451 S L1 AND ............[-K]...../SQSP
L21       10462 S L1 AND ..........[-K]...../SQSP
L22       10394 S L1 AND .........[-K]......../SQSP
L23       10230 S L1 AND ........[-K]........./SQSP
L24       10549 S L1 AND .......[-K].........../SQSP
L25       10562 S L1 AND ......[-K]........../SQSP
L26       10380 S L1 AND .....[-K]........../SQSP
L27       10241 S L1 AND ....[-K]........../SQSP
L28       10298 S L1 AND ...[-K]........../SQSP
L29       10630 S L1 AND ..[-K]........../SQSP
L30       10403 S L1 AND .[-K]........../SQSP
L31       10371 S L1 AND [-K]........../SQSP

=> FIL BIOSIS MEDLINE CAPLUS EMBASE SCISEARCH
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              609.65     633.53

FILE 'BIOSIS' ENTERED AT 19:06:44 ON 20 NOV 2002
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FILE 'MEDLINE' ENTERED AT 19:06:44 ON 20 NOV 2002

FILE 'CAPLUS' ENTERED AT 19:06:44 ON 20 NOV 2002
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for specific information.

=> s [-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K]/sqsp
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=> FIL REGISTRY
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FULL ESTIMATED COST 6.12 644.04

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=> s [-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K][-K]/sqsp
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
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Desk by telephone or via SEND in the STNMAIL file.

=> s [-K].[-K].[-K].[-K].[-K].[-K].[-K].[-K].[-K]./sqsp
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=> s l33 and sql=18
71236 SQL=18
L34 6669 L33 AND SQL=18

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Desk by telephone or via SEND in the STNMAIL file.

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COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

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L35 1312681 .[-K].[-K].[-K].[-K].[-K].[-K].[-K].[-K].[-K]/SQSP

=> s l35 and sql=18
71236 SQL=18
L36 6291 L35 AND SQL=18

=> s l34 and l36
L37 4690 L34 AND L36

=> FIL BIOSIS MEDLINE CAPLUS EMBASE SCISEARCH AGRICOLA CABA ESBIOBASE
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 65.56 709.60

08/03/01

09921880

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=> s l3 and l37
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7 FILES SEARCHED...
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'SQSP' IS NOT A VALID FIELD CODE
L38 0 L3 AND L37

=> s l3 and seed and extract
L39 153 L3 AND SEED AND EXTRACT

=> s l39 and diabetes
L40 15 L39 AND DIABETES

=> d l40 1-15 au ti so py ab

L40 ANSWER 1 OF 15 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU Jeevathayaparan, S. (1); Tennekoon, Kamani H.; Karunanayake, Eric H. (1); Jayasinghe, K. S. A.
TI Oral hypoglycaemic activity of different preparations of Momordica **charantia**.
SO Journal of the National Science Council of Sri Lanka, (1991) Vol. 19, No. 1, pp. 19-24.
ISSN: 0300-9254.
PY 1991
AB Four different preparations of Momordica **charantia**, namely, fruit juice, **seed extract**, freeze dried fruit juice and commercially available capsules were evaluated for oral hypoglycaemic activity using normal healthy Sprague Dawley rats as the animal model. Fruit juice, freeze dried fruit juice and **seed extract** of M. **charantia** significantly (P lt 0.01 - 0.001) improved the ability to tolerate an oral glucose load and the oral hypoglycaemic activity of these three preparations were comparable. However, the commercially available M. **charantia** capsules failed to improve

significantly glucose tolerance at the dosage used in this study.

L40 ANSWER 2 OF 15 MEDLINE
AU Ali L; Khan A K; Mamun M I; Mosihuzzaman M; Nahar N; Nur-e-Alam M; Rokeya B
TI Studies on hypoglycemic effects of fruit pulp, **seed**, and whole plant of Momordica **charantia** on normal and diabetic model rats.
SO PLANTA MEDICA, (1993 Oct) 59 (5) 408-12.
Journal code: 0066751. ISSN: 0032-0943.
PY 1993
AB **Extracts** of Momordica **charantia** fruit pulp, **seed**, and whole plant were tested for their hypoglycemic effects on normal and diabetic rat models. The results show that during the oral glucose tolerance test the peak blood glucose values in rats are obtained much earlier (15-45 min) than in human subjects (around 60 min). Pulp juice of M. **charantia** lowered fasting blood glucose levels in normal rats ($p < 0.05$ at 120 min); the effect was more pronounced with the saponin-free methanol **extract** of the pulp juice ($p < 0.05$ at 60 min and $p < 0.01$ at 120 min). The pulp juice also had a significant hypoglycemic effect in the glucose-fed normal rats when the **extract** was fed 45 minutes before the oral glucose load [percentage increments over basal value (M +/- SE): 85 +/- 10 in the control group vs. 54 +/- 7 in the pulp juice group, $p < 0.01$]. In the IDDM model rats the pulp juice had no significant effect on blood glucose levels either in fasting or postprandial states. In the NIDDM model rats the saponin-free methanol **extract** of juice produced a significant hypoglycemic effect both in fasting ($p < 0.05$ at 120 min) and in postprandial states (sum of percentage increments over basal value: 140 +/- 26 in the control vs. 71 +/- 7 in the pulp juice group, $p < 0.05$). Methanol **extracts** of **seed** and of whole plant, and saponin-free methanol **extract** of whole plant produced no hypoglycemic effects in normal or IDDM model rats either in fasting or in postprandial states.(ABSTRACT TRUNCATED AT 250 WORDS)

L40 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2002 ACS
IN Khanna, Pushpa
TI Protein/polypeptide-k obtained from Momordica **charantia**, a process for the extraction thereof, and therapeutic uses for **diabetes** mellitus
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
PY 2000
2002
2002
AB The invention relates to a highly effective hypoglycemic polypeptide-k, extd. from Momordica **charantia**. This invention also provides a method for the extn. of said polypeptide-k from Momordica **charantia**. Further, the invention provides novel hypoglycemic compns. employing the said **ext**., and useful in the treatment of **diabetes** mellitus.

L40 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2002 ACS
AU Raman, A.; Lau, C.
TI Anti-diabetic properties and phytochemistry of Momordica **charantia** L. (Cucurbitaceae)
SO Phytomedicine (1996), 2(4), 349-362
CODEN: PYTOEY; ISSN: 0944-7113
PY 1996
AB A review with many refs. Unripe fruit, **seeds** and aerial parts of Momordica **charantia** Linn. (Cucurbitaceae) have been used in various parts of the world to treat **diabetes**. Oral

administration of the fruit juice or **seed** powder causes a redn. in fasting blood glucose and improves glucose tolerance in normal and diabetic animals and in humans. Animal and in vitro data support both insulin secretagogue and insulinomimetic activity of the fruit. However, enhanced insulin levels in vivo in response to its administration have not been obsd. Although a wide range of compds. have been isolated from Momordica **charantia**, notably steroidal compds. and proteins, the orally active antidiabetic principle has not been adequately identified. A polypeptide, p-insulin, produces hypoglycemic effects in humans and animals on s.c. injection, but oral activity is questionable. Other reported hypoglycemic principles from Momordica **charantia** include the sterol glucoside mixt. charantin (fruit) and the pyrimidine nucleoside vicine (**seeds**). However these are only effective at doses too high to account for all the activity of the plant **ext**. Principal toxicity of Momordica **charantia** in animals is to the liver and reproductive system. These effects have not been reported in humans despite widespread use of the fruit medicinally and as a vegetable.

L40 ANSWER 5 OF 15 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AU Aslam M.; Healy M.A.
TI Hypolglycaemic properties in traditional medicines with specific reference to karela.
SO Medical Forum Monthly, (2001) 12/1 (4-8).
Refs: 30
ISSN: 1029-385X CODEN: MEDFFR
PY 2001
AB The principal forms and clinical manifestations of **diabetes** are described together with the historical background leading to the current practices in the treatment of the disease, in both the allopathic and traditional systems of medicine. The problems associated with patients undergoing dual treatment from both systems of medicine are highlighted by reference to an observed interaction between the curry ingredient karela (Momordica **charantia**) and the drug cholrpropamide in a 40-year-old Pakistani woman suffering from **diabetes** mellitus. A review of the efficacy and use of Momordica **charantia** as a hypoglycaemic agent both within the Asian community as well as in the countries of South America is presented Results from a pilot study performed here at Notingham, which investigated the effects of fruit and **seed extracts** of M. **charantia** on animal models of human normals, Type I and Type II diabetics is presented. It is concluded that acute treatment with fruit **extract** markedly improves glucose tolerance in Type I diabetics, whilst chronic treatment is more effective in the Type II models. The latter animals also showed a marked improvement in glucose tolerance with an acute treatment of **seed extract**. A cautionary observation from this study is that chronic administration of fruit **extract** was found to be lethal in the diabetic animals. Finally a variety of related plant materials which are reputed to have hypoglycaemic properties and which may be worthy of further investigations are described. In conclusion, it is urged that physicians treating Asian Patients for **diabetes** note the possibility of both drug-food interactions and of dual treatments.

L40 ANSWER 6 OF 15 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
AU Ali L.; Azad Khan A.K.; Rouf Mamun M.I.; Mosihuzzaman M.; Nahar N.; Nur-e-Alam M.; Rokeya B.
TI Studies on hypoglycemic effects of fruit pulp, **seed**, and whole plant of Momordica **charantia** on normal and diabetic model rats.
SO Planta Medica, (1993) 59/5 (408-412).
ISSN: 0032-0943 CODEN: PLMEAA
PY 1993
AB **Extracts** of Momordica **charantia** fruit pulp,

seed, and whole plant were tested for their hypoglycemic effects on normal and diabetic rat models. The results show that during the oral glucose tolerance test the peak blood glucose values in rats are obtained much earlier (15 - 45 min) than in human subjects (around 60 min). Pulp juice of M. **charantia** lowered fasting blood glucose levels in normal rats ($p < 0.05$ at 120 min); the effect was more pronounced with the saponin-free methanol **extract** of the pulp juice ($p < 0.05$ at 60 min and $p < 0.01$ at 120 min). The pulp juice also had a significant hypoglycemic effect in the glucose-fed normal rats when the **extract** was fed 45 minutes before the oral glucose load [percentage increments over basal value (M .+-. SE): 85 .+-. 10 in the control group vs. 54 .+-. 7 in the pulp juice group, $p < 0.01$]. In the IDDM model rats the pulp juice had no significant effect on blood glucose levels either in fasting or postprandial states. In the NIDDM model rats the saponin-free methanol **extract** of juice produced a significant hypoglycemic effect both in fasting ($p < 0.05$ at 120 min) and in postprandial states (sum of percentage increments over basal value: 140 .+-. 26 in the control vs. 71 .+-. 7 in the pulp juice group, $p < 0.05$). Methanol **extracts** of **seed** and of whole plant, and saponin-free methanol **extract** of whole plant produced no hypoglycemic effects in normal or IDDM model rats either in fasting or in postprandial states. **Seed** and whole plant **extracts** showed a small but consistent tendency to increase blood glucose levels in the normal rats. The results indicate the presence of non-sapogenin hypoglycemic compound(s) in M. **charantia** fruit pulp and the activity is probably mediated either by improving the insulin secretory capacity of the B cells or by improving the action of insulin.

L40 ANSWER 7 OF 15 SCISEARCH COPYRIGHT 2002 ISI (R)
AU Grover J K (Reprint); Yadav S; Vats V
TI Medicinal plants of India with anti-diabetic potential
SO JOURNAL OF ETHNOPHARMACOLOGY, (JUN 2002) Vol. 81, No. 1, pp. 81-100.
Publisher: ELSEVIER SCI IRELAND LTD, CUSTOMER RELATIONS MANAGER, BAY 15, SHANNON INDUSTRIAL ESTATE CO, CLARE, IRELAND.
ISSN: 0378-8741.
PY 2002
AB Since ancient times, plants have been an exemplary source of medicine. Ayurveda and other Indian literature mention the use of plants in treatment of various human ailments. India has about 45 000 plant species and among them, several thousands have been claimed to possess medicinal properties. Research conducted in last few decades on plants mentioned in ancient literature or used traditionally for **diabetes** have shown anti-diabetic property. The present paper reviews 45 such plants and their products (active, natural principles and crude **extracts**) that have been mentioned/used in the Indian traditional system of medicine and have shown experimental or clinical anti-diabetic activity. Indian plants which are most effective and the most commonly studied in relation to **diabetes** and their complications are: Allium cepa, Allium sativum, Aloe vera, Cajanus cajan, Coccinia indica, Caesalpinia bonducella, Ficus bengalenesis, Gymnema sylvestre, Momordica **charantia**, Ocimum sanctum, Pterocarpus marsupium, Swertia chirayita, Syzigium cumini, Tinospora cordifolia and Trigonella foenum graecum. Among these we have evaluated M. **charantia**, Eugenia jambolana, Mucuna pruriens, T cordifolia, T foenum graecum, O. sanctum, P. marsupium, Murraya koeingii and Brassica juncea. All plants have shown varying degree of hypoglycemic and anti-hyperglycemic activity.

L40 ANSWER 8 OF 15 SCISEARCH COPYRIGHT 2002 ISI (R)
AU Nmila R; Gross R; Rchid H; Roye M; Manteghetti M; Petit P; Tijane M; Ribes G; Sauvaire Y (Reprint)

09921880

TI Insulinotropic effect of Citrullus colocynthis fruit **extracts**
SO PLANTA MEDICA, (JUN 2000) Vol. 66, No. 5, pp. 418-423.
Publisher: GEORG THIEME VERLAG, RUDIGERSTR 14, D-70469 STUTTGART, GERMANY.
ISSN: 0032-0943.
PY 2000
AB Infusions of Citrullus colocynthis; Schrad. (Cucurbitaceae) fruits are traditionally used as antidiabetic medication in Mediterranean countries, but to our knowledge no studies have been undertaken so far to determine the possible mechanisms involved in the antidiabetic properties of the fruit. The present study was designed to investigate whether these fruits possess insulinotropic effects. For this purpose, different **extracts** of Citrullus colocynthis **seed** components were obtained: RN II (crude **extract**), RN VI (hydro-alcoholic **extract**), RN X (purified **extract**) and RN XVII (beta-pyrazol-1-ylalanine), the major free amino acid present in the **seeds**. The insulin secretory effects of these different **extracts** were evaluated in vitro in the isolated rat pancreas and isolated rat islets in the presence of 8.3 mM glucose. All tested **extracts**, when perfused for 20 min at 0.1 mg/ml, immediately and significantly stimulated insulin secretion. This effect was transient. In addition, the purified **extract** (RN X) provoked a clear dose-dependent increase in insulin release from isolated islets. Moreover. a significant and persistant increase in pancreatic flow rate appeared during RN VI, RN X and RN XVII perfusions. In conclusion, our results show that different Citrullus colocynthis **seed extracts** have an insulinotropic effect which could at least partially account for the antidiabetic activities of these fruits.

L40 ANSWER 9 OF 15 SCISEARCH COPYRIGHT 2002 ISI (R)
AU Platel K; Srinivasan K (Reprint)
TI Plant foods in the management of **Diabetes** mellitus: Vegetables as potential hypoglycaemic agents
SO NAHRUNG-FOOD, (APR 1997) Vol. 41, No. 2, pp. 68-74.
Publisher: VCH PUBLISHERS INC, 303 NW 12TH AVE, DEERFIELD BEACH, FL 33442-1788.
ISSN: 0027-769X.
PY 1997
AB Vegetables are among the numerous plant adjuncts tried for the treatment of **diabetes** mellitus. A few vegetables that are commonly consumed in India have been claimed to possess antidiabetic potency. In recent years, there has been a renewed interest to screen such plant food materials, for a possible beneficial use. Considerable amount of work has been carried out in this regard with bitter gourd (Momordica **charantia**) and ivy gourd (Coccinia indica) both in experimental animals and human diabetic subjects. Majority of these studies have documented the beneficial effect of the fruit of bitter gourd and leaf of ivy gourd when administered orally as a single dose. The hypoglycaemic influence is claimed to be mediated through an insulin secretagogue effect or through an influence on enzymes involved in glucose metabolism. The limited number of studies on other vegetables such as cabbage (Brassica oleracia), green leafy vegetables, beans and tubers have shown the beneficial hypoglycaemic influence in both experimental animals and humans. There is scope for more extensive research in this area, especially to examine the long term beneficial effect of dietary vegetables, to identify the active principle, and to understand the mechanism of action, which is at present unclear. Since diet forms the mainstay in the management of **diabetes** mellitus, there is scope for exploiting the antidiabetic potency of vegetables to the maximum extent. Such plant food adjuncts possessing hypoglycaemic activity appear to hold promise as potential antidiabetic agents.

09921880

L40 ANSWER 10 OF 15 SCISEARCH COPYRIGHT 2002 ISI (R)
AU RAMAN A (Reprint); LAU C
TI ANTIDIABETIC PROPERTIES AND PHYTOCHEMISTRY OF MOMORDICA-**CHARANTIA** L (CUCURBITACEAE)
SO PHYTOMEDICINE, (MAR 1996) Vol. 2, No. 4, pp. 349-362.
ISSN: 0944-7113.
PY 1996
AB Unripe fruit, **seeds** and aerial parts of Momordica **charantia** Linn. (Cucurbitaceae) have been used in various parts of the world to treat **diabetes**. Oral administration of the fruit juice or **seed** powder causes a reduction in fasting blood glucose and improves glucose tolerance in normal and diabetic animals and in humans. Animal and in vitro data support both insulin secretagogue and insulinomimetic activity of the fruit. However, enhanced insulin levels in vivo in response to its administration have not been observed. Although a wide range of compounds have been isolated from Momordica **charantia**, notably steroidal compounds and proteins, the orally active antidiabetic principle has not been adequately identified. A polypeptide, p-insulin, produces hypoglycaemic effects in humans and animals on subcutaneous injection, but oral activity is questionable. Other reported hypoglycaemic principles from Momordica **charantia** include the sterol glucoside mixture charantin (fruit) and the pyrimidine nucleoside vicine (**seeds**). However these are only effective at doses too high to account for all the activity of the plant **extract**. Principal toxicity of Momordica **charantia** in animals is to the liver and reproductive system. These effects have not been reported in humans despite widespread use of the fruit medicinally and as a vegetable.

L40 ANSWER 11 OF 15 AGRICOLA
AU Ali, L.; Khan, A.K.A.; Mamun, M.I.R.; Mosihuzzaman, M.; Nahar, N.; Nur-e-Alam, M.; Rokeya, B.
TI Studies on hypoglycemic effects of fruit pulp, **seed**, and whole plant of Momordica **charantia** on normal and diabetic model rats.
SO Planta medica, Oct 1993. Vol. 59, No. 5. p. 408-412
Publisher: Stuttgart : Georg Thieme Verlag,
CODEN: PLMEAA; ISSN: 0032-0943
PY 1993

L40 ANSWER 12 OF 15 CABA COPYRIGHT 2002 CABI
AU Raman, A.; Skett, P.; Prendergast, H. D. V. [EDITOR]; Etkin, N. L. [EDITOR]; Harris, D. R. [EDITOR]; Houghton, P. J. [EDITOR]
TI Traditional remedies and **diabetes** treatment.
SO Plants for food and medicine. Proceedings of the joint conference of the Society for Economic Botany and the International Society for Ethnopharmacology, London, UK, 1-6 July 1996, (1998) pp. 361-372. 50 ref.
Publisher: Royal Botanic Gardens (KRBG). Meeting Info.: Plants for food and medicine. Proceedings of the joint conference of the Society for Economic Botany and the International Society for Ethnopharmacology, London, UK, 1-6 July 1996. ISBN: 1-900347-55-5
PY 1998
AB The recorded use of herbal remedies for the treatment of **diabetes** mellitus (DM) goes back to 1500 BC. Many plant remedies have been mentioned in traditional medicine systems of Arabia, China and the Indian subcontinent and, in the last 30 years, numerous scientific studies have been performed to see if their use can be validated. There is continued interest in the screening of such ethnopharmacological leads not only through clinical studies, but also through in vivo animal models and in vitro bioassays. This is illustrated by reference to 3 traditional remedies for **diabetes** for which there are considerable supporting data for efficacy. Gymnema sylvestre **extract** has been

found to have hypoglycaemic effect in insulin-independent and in insulin-dependent DM patients, to increase insulin levels in the former and to reduce insulin requirements in the latter. Animal studies have suggested that regeneration of pancreatic tissue may be stimulated. Using in vitro models, insulin secretagogue activity and inhibition of glucose absorption in the intestine have been attributed to conduritol A, a component of G. sylvestre leaves. The antidiabetic effects of unripe fruits of Momordica **charantia** have been demonstrated in humans and animals. In vitro effects include stimulation of insulin release from pancreatic islets and inhibition of glycogen phosphorylase activity in isolated hepatocytes. Similar insulinomimetic in vitro effects have been observed with **extracts** of the **seeds** of Trigonella foenum-graecum.

L40 ANSWER 13 OF 15 CABA COPYRIGHT 2002 CABI
AU Liaquat Ali; Khan, A. K. A.; Mamun, M. I. R.; Mohammad Mosihussaman; Nilufar Nahar; Mohammad Nur-e-Alam; Begum Rokeya
TI Studies on hypoglycemic effects of fruit pulp, **seed**, and whole plant of Momordica **charantia** on normal and diabetic model rats.
SO Planta Medica, (1993) Vol. 59, No. 5, pp. 408-412. 17 ref. ISSN: 0032-0943
PY 1993
AB **Extracts** of M. **charantia** fruit pulp, **seed**, and whole plant were tested for their hypoglycaemic effects in normal and diabetic rat models. The results showed that during the oral glucose tolerance test, the peak blood glucose values in rats are obtained much earlier (15-45 min) than in human subjects (around 60 min). Pulp juice of M. **charantia** lowered fasting blood glucose levels in normal rats; the effect was more pronounced with the saponin-free methanol **extract** of the pulp juice. The pulp juice also had a significant hypoglycaemic effect in the glucose-fed normal rats when the **extract** was fed 45 min before the oral glucose load. In IDDM rats, the pulp juice had no significant effect on blood glucose levels either in fasting or postprandial states. In NIDDM rats, the saponin-free methanol **extract** of juice produced a significant hypoglycaemic effect both in fasting and in postprandial states. Methanol **extracts** of **seed** and of whole plant, and saponin-free methanol **extract** of whole plant produced no hypoglycaemic effects in normal or IDDM rats either in fasting or in postprandial states. **Seed** and whole plant **extracts** showed a small but consistent tendency to increase blood glucose levels in normal rats. The results indicate the presence of non-sapogenin hypoglycaemic compound(s) in M. **charantia** fruit pulp; hypoglycaemic activity is probably mediated either by improving the insulin secretory capacity of B cells or by improving the action of insulin.

L40 ANSWER 14 OF 15 CABA COPYRIGHT 2002 CABI
AU Srivastava, Y.; Venkatakrishna-Bhatt, H.; Verma, Y.; Venkaiah, K.; Raval, B. H.
TI Antidiabetic and adaptogenic properties of Momordica **charantia** **extract**: an experimental and clinical evaluation.
SO Phytotherapy Research, (1993) Vol. 7, No. 4, pp. 285-289. 33 ref. ISSN: 0951-418X
PY 1993
AB M. chartantia (bitter gourd) fruits and **seeds** are reported to have hypoglycaemic properties. The powder of dried fruits, and the aqueous **extract** of fruits, were administered to rats with alloxan-induced **diabetes**, and to diabetic patients (male, aged 42-70) in India. The hypoglycaemic effects are reported.

L40 ANSWER 15 OF 15 CABA COPYRIGHT 2002 CABI
AU Dubey, D. K.; Biswas, A. R.; Bapna, J. S.; Pradhan, S. C.